REMARKS

Status of the claims:

Claim 1-7 are pending and ready for further action on the merits. Reconsideration is respectfully requested in light of the following remarks.

[I] Prior Art Related Issues

The following prior art based rejections are pending:

A. Claims 1-2, 3-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Toya;

B. Claims 1-2, 4-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Moon and Kirk et al.;

C. Claims 3-4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Toya or Moon as applied to claims 1-2, 5-7 above, and further in view of Matsumoto et al., and Milton; and

D. Claims 3-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Toya and Moon in view of Matsumoto et al., Kirk and Milton.

Applicant respectfully traverses each of the rejections.

Applicant has amended claim 1, so that the surface active agent of formula (F) must have an alkylene group "Rc" bonded to the perfluoroalkyl group "Rf" to further distinguish from the cited references.

In the Examiner's comments on page 5 (section 10), the Examiner has taken the position that the arguments made in the November 22, 2002 Amendment regarding the fact that the present specification shows evidence of unexpected results, are not persuasive. The Examiner has found that the unexpected results are based on Counsel's assertion. The Examiner states, "[c]ounsel's arguments cannot take the place of evidence."

In response, Applicant respectfully submits that there is no requirement that the assertion of unexpected results be made by a skilled artisan, when the evidence in the specification is of such a nature that the skilled artisan would reach this conclusion. Support for this position can be found in *In re Soni*, 34 USPQ2d 1684 (Fed. Cir. 1995). In *Soni*, the Examiner maintained an obviousness rejection without considering the evidence of unexpected results in the specification in spite of Applicants' attorney's assertion that the evidence was unexpected based on the cited references. The court stated:

> *[c]onsistent with the rule that all evidence of nonobviousness must be considered when assessing patentability, the PTO must consider comparative data in the specification in determining whether the claimed invention provides unexpected results. . . . Here, Soni's specification contains more than mere argument or conclusory statements; it contains specific data indicating improved properties.*

The court went on to emphasize that Soni owed the PTO a duty of candor in filing the application, and as such, the evidence in

the specification should be taken into consideration by the Examiner when reviewing prior art references under the obviousness standard.

Accordingly, Applicant respectfully requests that the Examiner reviews the evidence in the specification in light of *Soni*. Applicant respectfully submits that when the Examiner considers the evidence of the specification, the Examiner will find that a skilled artisan would reasonably conclude that the evidence in the specification is unexpected.

[I - A] Toya

Toya teaches a method of forming an image on a light sensitive material which comprises a support having provided thereon at least one layer containing light-sensitive silver halide grains having an average grain size of no greater than 0.2 microns, and the light-sensitive silver halide grains have a coverage rate of no greater than 1 g/m^2, based on silver. (See Abstract). Based on the disclosure of Toya, the gist of his invention is the size and concentration of the silver halide grains in the light-sensitive material. Toya is not concerned to any significant degree with matters such as a surface active agent and a color toning agent in the photothermographic material.

Applicant respectfully submits that Toya fails to make the presently claimed invention obvious, since Toya fails to teach or fairly suggest a photothermographic material containing a

fluorinated surface active agent as defined by inventive formula (F) in combination with a phthalazine compound and a phthalic acid compound, as presently claimed. As mentioned above, the claims have been amended to further distinguish from Toya, i.e., the fluorinated surface active agent (Formula (F)) has an alkylene group bonded directly to the perfluoroalkyl group. Toya fails to teach or suggest the inventive fluorinated surface active agent.

As the MPEP directs, all the claim limitations must be taught or suggested by the prior art to establish a *prima facie* case of obviousness. See MPEP § 2143.03. Since Toya fails to teach or suggest the inventive fluorinated surface active agent (Formula (F)) wherein an alkylene group bonded directly to the perfluoroalkyl group, Applicant respectfully submits that a *prima facie* case of obviousness has not been made regarding the disclosure of Toya.

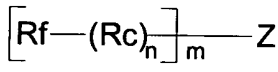
Furthermore, Toya only suggests the use of a possible combination of a phthalazine and phthalic acid toning agent in column 7, lines 23-24 amongst a long list of possible toning agents. In addition, in the exemplified photothermographic materials, Toya uses phthalazinone alone, see column 16, line 53. As such, the skilled artisan would not be motivated to use the combination of a phthalazine and phthalic acid toning agent in the photothermographic material.

Even though a *prima facie* case of obviousness cannot be said to exist based on the teachings of Toya, the evidence of

unexpected results in the specification (which, as mentioned above, must be considered by the Examiner) would remove the *prima facie* case.

The present invention is drawn to a photothermographic material having excellent heat developing properties as well as image stock stability. The image stock stability prevents the attachment of foreign materials such as dust, etc., which cause white spots on the developed film.

As a result of intensive investigations, the present inventors have surprisingly found that photothermographic materials show excellent heat-developing properties and image stock stability when the photothermographic material contains a unique surface active agent of formula (F)



(F)

wherein Rf is a perfluoroalkyl group, Rc is an alkylene group and n is 1, in the presence of color toning agents of phthalazine and phthalic acid. The experiments described in the present specification are evidence of this fact. The following table includes data related to the image stock stability of the inventive photothermographic material, and is obtained from Table 1 on page 105 of the present specification.

Sample No.	Fluorine-based Surface Active Agent	White Spots	Note
1	Comp. A	8	Comparison
001	FC-1	10	Comparison
002	FC-2	9	Comparison
003	FC-3	11	Comparison
004	FS-18	3	Invention
005	FS-19	3	Invention
006	FS-21	2	Invention
007	FS-26	4	Invention
008	FS-38	3	Invention
009	FS-39	3	Invention
010	FS-41	2	Invention

Comp. A = N-perfluoroctylsulfonyl-N-propylalanine potassium salt and polyethylene glycol mono(N-perfluoroctylsulfonyl-N-propyl-2-aminoethyl) ether

The Examiner's attention is directed to Compound FC-3, which is identical to the fluorinated surfactant used by Toya, in the teachings identified by the Examiner, specifically column 17, lines 30-45 and column 19, lines 35-50.

As described on the top of page 97 and on page 100, lines 13-14 and page 101, lines 17-23, the samples in the above table were prepared with both phthalazine compounds and phthalic acid compounds as the color toning agents. As can be seen from the data, there was a marked reduction in the number of white spots in

the photothermographic material containing the phthalazine compound/phthalic acid compound color toning agent and the fluorine-based surface active agent of formula (F) when compared to essentially the same photothermographic material except that the fluorine-based surface active agent was structurally distinct from the compounds described in formula (F). In other words, the instant invention is unexpectedly superior relative to the material disclosed in Toya because one of ordinary skill in the art would not expect this effect on white spots.

Applicant also respectfully submits that none of the cited references teach or fairly suggest the improvements to the image stock stability of the photothermographic material obtained using the combination of a fluorinated surface active agent of formula (F) in combination with a phthalazine/phthalic acid color toning agent, and as such these improvements would not be expected based on the teachings of the cited references.

Accordingly, even if a *prima facie* case of obviousness did exist based on the teachings of Toya, which Applicant does not concede, the evidence of unexpected results in the specification (which, as mentioned above, must be considered by the Examiner) would remove the *prima facie* case.

[I - B] Moon, U.S. 5,989,796

The gist of Moon's invention is to reduce low density spots visible after thermal processing, by including a protective coat having a film forming binder comprised of a water dispersible polymer containing hydroxy pendent groups and specific surfactants.

As mentioned above, Applicant has amended claim 1, so that the surface active agent of formula (F) has an alkylene group "Rc" bonded to the perfluoroalkyl group "Rf" to further distinguish from Moon. Applicant respectfully submits that Moon fails to teach or fairly suggest the use of the inventive surface active agent of formula (F).

Regarding the toner in the photothermographic material, Moon describes a laundry list of possible toners in column 12, lines 13-53. In this list, at column 12, lines 37-38, there is no teaching or suggestion that phthalazine can be combined with phthalic acid, as presently claimed. In addition, Moon only uses phthalimide in the examples. See column 19, line 12. Accordingly, the skilled artisan would not be motivated to use the combination of phthalazine and phthalic acid as the toning agent as asserted by the Examiner.

Moreover, Applicants have conducted comparative experiments to show that the combination of phthalazine and phthalic acid as recited in the present invention is superior to the succinimide and phthalazine used in the working example in Moon. The

composition of Moon did not have any effect on the white spot because of low image density due to low toner activity. Applicants will submit a 37 CFR §1.132 declaration showing this effect.

Not only does the instant invention possess unexpectedly superior results relative to Moon, but as the MPEP directs, all of the claim limitations must be taught or suggested by the prior art to establish a *prima facie* case of obviousness. See MPEP §2143.03. Applicant respectfully submits that the presently claimed invention is not rendered obvious by Moon, since Moon fails to fairly suggest that the photothermographic material contains a toner which is a combination of phthalazine and phthalic acid and a surface active agent of formula (F) has an alkylene group "Rc" bonded to the perfluoroalkyl group "Rf", as presently claimed.

[I - C] Matsumoto et al., U.S. 5,958,668, Kirk et al., U.S. 5,939,248 and Milton U.S. 3,544,336

As mentioned above, Toya and Moon fail to teach or suggest the photothermographic material comprising a surface active agent of inventive formula (F) in combination with a phthalazine/phthalic acid compound toning agent, nor the unexpectedly improved properties engendered by this combination in the inventive photothermographic material. The patentable distinctions between the presently claimed invention and the

teachings of Toya and Moon, as described above, are herein incorporated by reference.

The Examiner, aware of the deficiencies of Toya and Moon, cites Matsumoto et al., Kirk et al. and Milton in order to cure those deficiencies. Applicant respectfully submits that the teachings of the combination of Matsumoto et al., Kirk et al. and Milton fail to cure these deficiencies.

The gist of the invention of Matsumoto et al. is to give a recording material little fog and dynamic color development based upon the presence of an antifoggant of general formula (A)-(F). See column 2, lines 11-39. Matsumoto et al. fail to teach or suggest the surface active agent of inventive formula (F). Also, Matsumoto et al. fail to teach using the combination of phthalazine and phthalic acid as the toning agent, as presently claimed. In column 19, lines 11-36, Matsumoto et al. generically teach many types of toning agents which can be used in the recording medium. However none of the toning agents include phthalazine, as presently claimed. Also, Matsumoto et al. use phthalazinone as the toning agent in each of the examples. See column 22, line 60. Thus, Applicant respectfully submits that Matsumoto et al. fail to cure the deficiencies of Toya, Moon and Melpolder et al.

Regarding Kirk et al., the Examiner cites this reference for teaching the polyhalogenate compound of inventive claim 4 and the phosphorus compound of inventive claim 3. As such, Kirk et al.

fail to cure the deficiencies of the combination of Toya, Moon, and Matsumoto et al.

With regard to the teachings of Milton, the Examiner cites Milton for teaching a phosphorus compound of inventive claim 3. Since Milton fails to teach or suggest the fluorinated surfactant of inventive formula (F) in combination with a color toning agent of phthalazine and phthalic acid compounds, Applicant respectfully submits that Milton fails to cure the deficiencies of the combination of Toya, Moon, Matsumoto et al. and Kirk et al. As such, withdrawal of all of the rejections is respectfully requested.

[II] Copending U.S. Application 09/632,000 (US '000)

[II - A] Provisional Rejection Under 35 USC 103

Claims 1-7 are provisionally rejected under 35 U.S.C. §103(a) as being obvious over U.S. '000. Applicant respectfully traverses the provisional rejection.

According to MPEP § 706.02(l)(1), effective November 29, 1999, subject matter which was prior art under former 35 U.S.C. § 103 via 35 U.S.C. § 102(e) is now disqualified as prior art against the claimed invention if that subject matter and the claimed invention "were, at the time the invention was made" owned by the same person or subject to an obligation of assignment to the same person."

MPEP § 706.02(l)(2) instructs that an attorney or agent of record may make a statement to the effect that that application and the reference were, at the time the invention was made, owned by, or subject to an obligation of assignment to, the same person.

[II - A - i] Statement Evidencing Common Ownership

The present application, and the U.S. Application Number 09/632,000 to Tadashi ITO et al. were, at the time the invention was made, owned by, or subject to an obligation of assignment to, the same person.

[II - A - ii] Consequences Of The Above-Statement

Accordingly, Applicant respectfully submits that the reference, US '000, will not be available as prior art under 35 U.S.C. § 102(e)/§ 103(c) once US '000 issues as a patent.

[II - B] Obvious-type Double Patenting

Claims 1-7 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being

unpatentable over claims 1-23 of U.S. '000 in view of Toya. Applicant respectfully traverses the rejection.

The Examiner cites Toya for teaching that it would be obvious to incorporate the combination of phthalazine and phthalic acid into the claimed photothermographic material of US '000. Applicant respectfully submits that Toya fails to fairly suggest a photothermographic material containing the combination of a phthalazine compound and a phthalic acid compound, as presently claimed. However, in order to advance prosecution, Applicant respectfully requests that the Terminal Disclaimer filed with the response of May 12, 2003 over US '000 be entered into the record. As such, withdrawal of the rejection is respectfully requested.

[II - C] Japanese Application No. 1999-220378 (JP '378)

Applicant notes that US '000 claims priority to JP '378 and JP '378 published on March 16, 2001. Accordingly, JP '378 is available under 35 USC 103 through 35 USC 102(a).

Applicant respectfully requests that the Examiner enter into the record the verified English translation of the instant priority document JP Application No. 2000-206560 (JP '560) that was filed on May 12, 2003. Because JP '560 has a filing date of July 7, 2000, JP '378, which has an effective date of March 16, 2001, is not available as prior art.

[III] THIRD REQUEST for a Supplemental Notice of References Cited (PTO-892 Form)

Applicant notes that the Examiner has not indicated on the PTO-892 Form enclosed with the August 14, 2002 Office Action, the references of Moon and Milton et al. Applicant respectfully requests a Supplemental PTO-892 Form, which lists these references.

Conclusion

In view of the above amendments and comments, Applicant respectfully submits that the claims are in condition for allowance. A notice to such effect is earnestly solicited.

Applicant has attached hereto a marked up version of the claims to show the changes made for the Examiner's convenience.

If the Examiner has any questions concerning this application, he is requested to contact Garth M. Dahlen, Ph.D. (#43,575) at the offices of Birch, Stewart, Kolasch & Birch, LLP.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional

fees required under 37 C.F.R. § 1.16 or under § 1.17; particularly, extension of time fees.

Respectfully submitted,

BIRCH, STEWART, KOLASCH & BIRCH, LLP

By _____ #32881
Marc S. Weiner
Reg. No. 32,181

MSW/GMD/TBS/gh

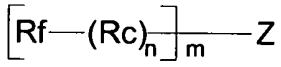
P. O. Box 747
Falls Church, VA 22040-0747
(703) 205-8000

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

Claim 1 has been amended as follows:

1. (Three Times Amended) A photothermographic material comprising a support having provided on one surface thereof at least one kind of light-sensitive silver halide, a light-insensitive organic silver salt, a reducing agent for silver ions, and a binder, wherein the photothermographic material comprises a surface active agent represented by the following formula (F):



(F)

wherein Rf represents a perfluoroalkyl group, Rc represents an alkylene group, Z represents a group having an anionic group, a cationic group, a betaine-series group, or a nonionic polar group necessary for imparting a surface activity, n represents [an integer of 0 or] 1, and m represents an integer of 1, 2 or 3, and wherein the photothermographic material comprises a color toning agent, which is a combination of a phthalazine compound and a phthalic acid compound.